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ABSTRACT

A method of drilling holes in a work piece includes receiving a laser beam directed along an optical path; and directing the laser beam through a beam former, disposed in the optical path, to form an array of sub-beams of a first pitch size. The method demagnifies the array of sub-beams to form a reduced-size pattern of a second pitch size on the work piece. The array of sub-beams is translated, or moved in a perpendicular direction to the optical path. After translating the array of sub-beams, the method forms the reduced-size pattern of the second pitch size on the work piece. The second pitch size may be smaller than the wavelength of the laser beam.